

## Appendix A - Optional recommended methodologies -

### Recommended pavement construction material standards -

Surface Course - The surface course will be made up of the existing (as installed) 80mm x 100mm x 200mm concrete block paviours (to be lifted, stockpiled and reinstalled as part of the new construction). The existing paviours appear to be in reasonable condition and are generally intact with minimal wear to each of the relevant faces. All existing block paviours will need to be condition inspected by the installing contractor prior to being re-laid.

Bedding Layer - A Category 1 laying course material (installed in a 30mm layer) as defined in BS7533 - 3:2005; replacing the fine sand wherever feasible, for the correct specification of bedding sand layer required on site.

### Base Course

Cement bound granular mixture (Lean mix/ graded course aggregate) with load bearing capacity of 6-8N/mm<sup>2</sup>. This will also be permeable to act as a drainage medium for surface water run off which has migrated between the blocks.

### SUB BASE -

150mm MOT Type 1 compacted granular material to SHW Cl.803. This layer will stabilise any localised variances in the existing ground conditions providing structural support where necessary.

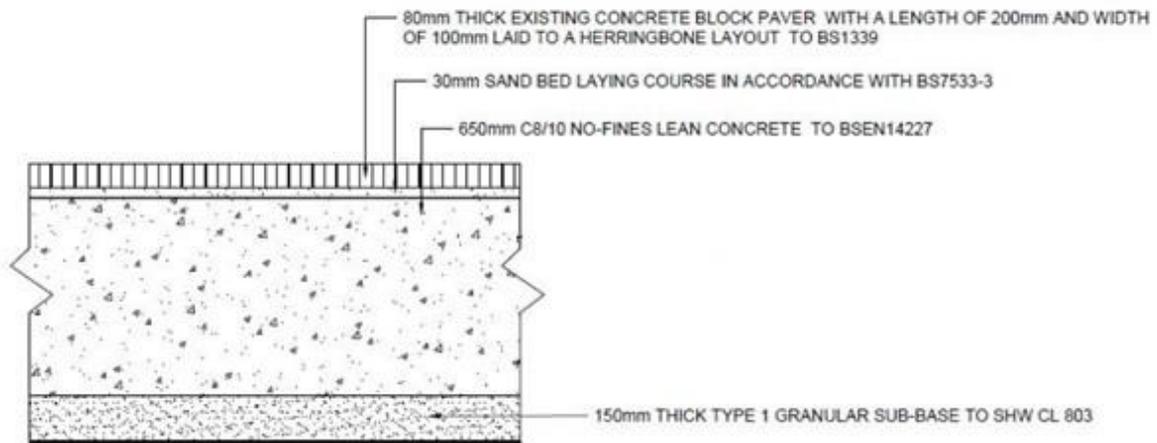
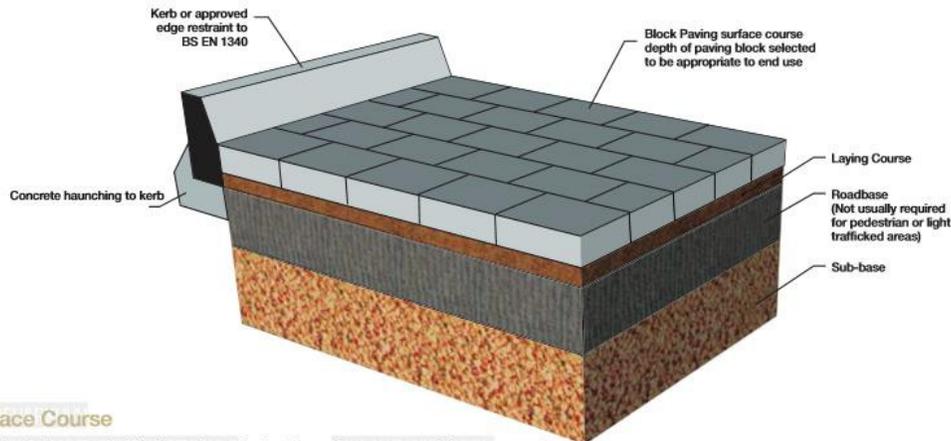


Figure 4: Option 1 Pavement Construction Detail



### Surface Course

The selected concrete block paving units for the surface course of the pavement

### Laying Course

The layer of material on which the block paving units are bedded. It is essential that this material complies with the requirements of BS 7533-3 tables D.1, D.2 and D.3 and is appropriate to the end use of the pavement. It is not permitted to add cement or lime to the laying course material to act as a binder. Note that for more heavily trafficked sites the nominal depth of the laying course material is reduced and the allowable fines content is also reduced to minimise the potential for settlement and deterioration in use.

### Roadbase

The material placed above the sub-base and beneath the laying course layers. A roadbase layer will typically only be required in pavements that will be required to accommodate medium to heavier duty commercial traffic loadings, or where the subgrade (ground conditions) are poor and require improvement for the desired traffic loadings. The roadbase layer will act as a 'stiffening layer' in the pavement construction and may be a cement bound granular material (CBM) or a bituminous macadam material. Note that conventional lean mix concrete or mass concrete is not suitable for use in block pavements that are to receive vehicular traffic.

### Sub-base

All concrete block pavements will require a sub-base layer. This is usually a high quality granular all in aggregate material which is installed and compacted in layers. Normally this material will be a 'Type I' material in accordance with clause 803 of the Department for Transport Specification for Highway Works or clause 804 type B in accordance with the National Roads Authority Specification for Road Works. The use of lower quality fill materials and recycled rubble fill should be avoided unless the material has been independently tested to demonstrate it meets or exceeds the requirements of the specified sub-base material above.

### Paving Block Thicknesses

Most of the Kilsaran range of block paving is available in a variety of thicknesses to suit different end use requirements. While the depth of paving block selected must be appropriate to the end use, the maximum loading capacity that a constructed pavement can withstand will also be heavily dependent on the pavement build up and construction being appropriate to that end use.

